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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,937	08/27/2001	Rui M. Amorin	D/A0941 (1508/3320)	8656

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EXAMINER	
AILES, BENJAMIN A	
ART UNIT	**PAPER NUMBER**
2142	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/939,937	AMORIN ET AL.	
	Examiner	Art Unit	
	Benjamin A. Ailes	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 31-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 31-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to correspondence filed 29 March 2007.

2. Claims 1-18 and 31-36 remain pending. Claims 19-30 are canceled.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: It is unclear if the spelling of the first named inventor is correct. Currently, the spelling given is "Rui M. Amorin" and it is believed that the correct spelling should be "Rui M. Amorim".

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "monitoring system" as claimed in independent system claim 13, lines 10-16 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 13-18, 33 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Regarding independent claim 13, in lines 17-19, the limitation of "a controller that establishes said allowed connection between the associated device and the available server port using one of the available communication channels determined to have the link pulses" is unclear because claim 13 also recites a limitation which appears earlier which requires a "plurality of controllers". Applicant has failed to particularly point out and distinctly claim whether the lone controller is indeed on of the plurality of controllers and therefore the claim as written is rendered indefinite. For examination purposes, the examiner will read the claim as if the lone controller can be one of the plurality of controllers available but does not necessarily have to be one of the plurality.

Appropriate correction is required. Remaining dependent claims are rejected based on their dependency.

Response to Arguments

8. Applicant's arguments with respect to claims 1-18 and 31-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 6, 7, 12, 13, 18, 31, 32 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Stapleton et al. (U.S. 6,523,070), hereinafter referred to as Stapleton, in view of Poulter et al. (US 6,603,741 B1), hereinafter referred to as Poulter.

11. Regarding claim 1, Stapleton teaches a method for identifying one of a plurality of communication channels available for communication between one of a plurality of devices and a server, wherein the plurality of communication channels are formable between the server and cascadedly arranged controllers, each controller associated with one of the devices, including n inputs, n > 1, and a switching device configured to allow connection between one of the n inputs and the associated device and connection through the controller between the remaining n -1 inputs and n-1 outputs, and the n inputs of each succeeding controller in the cascade are respectively connected to n

outputs of a preceding one of the controllers (Fig. 2, col. 3, ll. 11-15), the method comprising:

monitoring, at each of the cascadely arranged controllers, each of the plurality of communication channels between the controller and the server (fig. 2 and fig. 4, col. 4, ll. 14-24, connection establishment by devices through downstream or upstream connectors);

Stapleton does teach of monitoring the status of the channels but does not explicitly teach the monitoring of the channels for link pulses wherein the presence of link pulses on one of the communication channels indicates that that particular communication channel are not currently being used for data transmission by the server and is available and providing the establishment of the connection channel. However, in related art, Poulter teaches on a link pulse exchange method wherein link pulses are used to establish a connection negotiate between for example a device and a server (col. 4, ll. 40-46). Through the negotiation process two network devices are able to monitor each other by way of the link pulses and complete an auto-negotiation process. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize link pulses as taught by Poulter in combination with the channel selection method as taught by Stapleton. One of ordinary skill in the art would have been motivated to make such a combination wherein Stapleton teaches the need to change communication channels often (col. 5, ll. 3-15) and Poulter teaches that through the link pulse exchange the highest common mode can be negotiated (col. 4, ll. 49-51).

12. Independent claims 7 and 13 contain similar subject matter and are rejected under the same rationale as claim 1.

13. Regarding claim 6, Stapleton and Poulter teach the method further comprising providing an indication of which of the plurality of communication channels was the established communication channel for the associated device (Stapleton, col. 3, ll. 18-21).

14. Claims 12 and 18 contain similar subject matter and are rejected under the same rationale as claim 6.

15. Regarding claims 31, 32 and 33, Stapleton and Poulter teach the method wherein said monitoring is performed for each of the associated devices, more than one of the associated devices are simultaneously connectable to different ones of the server ports determined to be available, and the communication channel of one of said simultaneously connected devices is formed through one of the inputs and outputs of a preceding one of the controllers in cascade (Stapleton, fig. 2 and fig. 4, col. 4, ll. 14-24, connection establishment by devices through downstream or upstream connectors).

16. Claims 2-5, 8-11, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stapleton and Poulter in view of Allmond et al. (US 5,754,552), hereinafter referred to as Allmond.

17. Regarding claim 2, Stapleton and Poulter do not expressly teach that the monitoring further comprises monitoring one of the plurality of communication channels at a time for the one or more link pulses. However, Allmond teaches that it is well known that a plurality of communication channels can be monitored for link pulses in a

mutually-exclusive manner, or one at a time (column 6, lines 56-57). Stapleton, Poulter and Allmond are analogous art because they are from the same field of endeavor of networking data devices. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Stapleton and Poulter by allowing only one communication channel to be monitored at a time, as taught by Allmond. One of ordinary skill in the art would have been motivated for doing this is to sequentially monitor the communication channels. Therefore it would have been obvious to combine Allmond with Stapleton and Poulter for the benefit of sequential monitoring to obtain the invention as specified in claim 2.

18. Claims 8 and 14 contain similar subject matter and are rejected under the same rationale as claim 2.

19. Regarding claim 3, Stapleton and Poulter do not explicitly teach that the monitoring further comprises disabling the other of the plurality of communication channels while the one of the plurality of communication channels is monitored for the one or more link pulses. Allmond teaches that it is well known in the art that communication channels other than the one being monitored can be disabled (col. 6, lines 59-63). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to disable Stapleton's unmonitored communication channels, as taught by Allmond. The motivation for doing so would have been to prevent potential interference from the unmonitored signals. Therefore, it would have been obvious to combine Allmond with Stapleton and Poulter for the benefit of interference prevention to obtain the invention as specified in claim 3.

20. Claims 9 and 15 contain similar subject matter and are rejected under the same rationale as claim 3.

21. Regarding claim 4, Stapleton and Poulter do not explicitly teach that the monitoring of one of the plurality of communication channels is conducted by two or more devices. Allmond teaches that it is well known in the art that one communication channel can be monitored by two devices (figure 1, items 124 and 128). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to allow one of Stapleton's communication channels to be monitored by two or more devices. The motivation for doing so would have been to allow more than one device to utilize the connection on that particular communication channel. Therefore, it would have been obvious to combine Allmond with Stapleton and Poulter for the benefit of connection utilization to obtain the invention as specified in claim 4.

22. Claim 10 contains similar subject matter and is rejected under the same rationale as claim 4.

23. Regarding claim 5, Stapleton and Poulter do not explicitly teach that the method further comprises blocking the communication channel monitored to have the link pulses for the one device from the other devices. Allmond teaches that it is well known that the communication channel monitored to have the link pulses for a particular device can be blocked from other devices (col. 6, lines 59-63). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to allow Stapleton's devices that aren't receiving link pulses to be blocked from the communication channel carrying the pulses to another device. The motivation for doing so would have been to

only allow the intended device to receive the pulses. Therefore, it would have been obvious to combine Allmond with Stapleton and Poulter for the benefit of appropriate pulse delivery to obtain the invention as specified in claim 5.

24. Claim 11 contains similar subject matter and is rejected under the same rationale as claim 5.

25. Claims 16, 34-36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stapleton and Poulter in view of Patel et al. (U.S. 5,883,894), hereinafter referred to as Patel.

26. Regarding claim 16, Stapleton and Poulter do not explicitly teach that each of the devices has one of the monitoring systems. Patel teaches that is it is well known that it is possible for each port to have an auto-negotiation system, which performs port monitoring (col. 4, lines 32-34). Stapleton and Poulter and Patel are analogous art because they are both from the same field of endeavor of network devices. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide each of Stapleton's devices with a monitoring system, as taught by Patel. The motivation for doing so would have been to allow each of the devices to monitor the plurality of communication channels. Therefore, it would have been obvious to combine Patel with Bennett for the benefit of allowing each device to monitor communication channels to obtain the invention as specified in claim 16.

27. Regarding claims 34-36, Stapleton and Poulter do not explicitly disclose that each of the devices has one of the monitoring systems. Patel teaches that is it is well known that it is possible for each port to have an auto-negotiation system, which

performs port monitoring (col. 4, lines 32-34). Stapleton and Poulter are analogous art because they are both from the same field of endeavor of network devices. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide each of Stapleton's devices with a monitoring system, as taught by Patel. The motivation for doing so would have been to allow each of the devices to monitor the plurality of communication channels. Therefore, it would have been obvious to combine Patel with Stapleton and Poulter for the benefit of allowing each device to monitor communication channels to obtain the invention.

28. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stapleton, Poulter and Patel in view of Allmond.

29. Regarding claim 17, Stapleton, Poulter and Patel do not explicitly disclose that the system further comprises a blocking system that blocks the communication channel monitored to have the link pulses for the one device from the other devices. Allmond teaches that it is well known that the communication channel monitored to have the link pulses for a particular device can be blocked from the other devices (col. 6, lines 59-63). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to allow Stapleton's devices that are not receiving link pulses to be blocked from the communication channel carrying the pulses to another device. The motivation for doing so would have been to only allow the intended device to receive the pulses. Therefore, it would have been obvious to combine Allmond with Stapleton and Poulter and Patel for the benefit of appropriate pulse delivery to obtain the invention as specified in claim 17.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A. Ailes whose telephone number is (571)272-3899. The examiner can normally be reached on M-F 6:30-4, IFP Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

baa

ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER